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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,250	03/09/2005	Horst Belau	S3-02P14932	2830

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EXAMINER	
LU, TOM Y	

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,250	BELAU ET AL.	
	Examiner	Art Unit	
	Tom Y. Lu	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 17-34 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 17-34 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 03/09/05; 06/29/07.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 03/09/2005 has been considered by the examiner.

2. The information disclosure statement (IDS) submitted on 06/29/2007 has been considered by the examiner.

3. The information disclosure statement (IDS) submitted on 11/01/2007 has been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 17-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasa et al ("Srinivasa" hereinafter) (U.S. Patent No. 6,608,910 B1) in view of Spies et al ("Spies" hereinafter) (U.S. Patent No. 5,157,268).

a. As per claim 17, Srinivasa discloses a method of detecting an object or a person in the interior of a motor vehicle (see figure 2), which comprises: providing an image recording unit (Camera 100, column 4, lines 34) for detecting an object or a person in the interior of the motor vehicle and an analytical unit (processing subsystem 108, column 4, line 45) for image transmitted from the image recording unit; operating at least one of the image recording unit and the

analytical unit. Altough Srinivasa teaches the processing subsystem 108 is operated to provide output to a smart airbag system, column 4, line 46-47. However, Srinivasa does not explicitly teach the claimed two modes. Spies teaches in a first operating mode when said analytical unit determines that an acceleration threshold values is not exceeded (Spies: column 4, line 26, acceleration sensor 1 operates in a mode that determines that an acceleration threshold values is not exceeded); and in a second operating mode when said analytical unit determines that the acceleration threshold value is exceeded (Spies: a second operating mode is activated when the acceleration threshold S1 at column 4, line 40 is exceeded. The examiner notes any of the threshold values S1, S2, S3 and S4 can be the claimed "acceleration threshold value"), the second operating mode taking over on a basis of positional data of a last measurement obtained in the first operating mode (Srinivasa: column 4, lines 46-47, the output of the subsystem 108 is the claimed last measurement obtained in the first operating mode, see column 3, lines 39-41). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to apply Scrinivasa's system in Spies's occupant safety system as suggested in Scrinivasa column 1, lines 24-32.

b. As per claim 18, the combination of Srinivasa and Spies teaches polling a value of a motor vehicle acceleration with the analytical unit with a cycle time of approximately 25ms (Spies: column 6, line 54). The examiner notes although the

time duration in Spies is 25ms, not the claimed 2ms, it is understood in the art that the time duration T1 in Spies can be set to any value that an operator desires.

c. As per claim 19, see explanation in claim 18.

d. As per claim 20, the examiner note as explained in claim 18, the acceleration value S1 can also be set to any value that an operator desires.

e. As per claim 21, the combination of Srinivasa and Spies teaches estimating a next position of the object or the person in the second operating mode on a basis of the measured acceleration values by way of a comparison model (as explained in Claim 17 above, the Srinivasa's system estimates the next position of the driver in the event that acceleration values are compared and exceeded a threshold values as taught in Spies).

f. As per claim 22, the combination of Srinivasa and Spies teaches wherein the threshold value is no longer exceeded, interrupting a currently running second operating mode and restarting the first operating mode (Spies: column 6, lines 50-59).

g. As per claim 23, the combination of Srinivasa and Spies teaches upon exceeding the threshold value, interrupting a currently first operating mode and starting the second operating mode (once the threshold values in Spies are exceeded, the second operating mode is activated).

h. As per claim 24, the device is a computer system, see abstract in Srinivasa. And the other limitations are addressed in claim 17.

i. As per claim 25, see explanation in claim 17 and 21.

j. As per claim 26, when the acceleration value is below the threshold values in Spies, the system operates in the first mode.

k. As per claim 27, the combination of Srinivasa and Spies teaches wherein said analytical unit is configured to reference values for a motor vehicle acceleration from an external airbag control unit (Spies: column 4, line 31).

l. As per claim 28, the combination of Srinivasa and Spies teaches an acceleration sensor for determining an acceleration of the motor vehicle (Spies: column 4, line 27).

m. As per claim 29, the combination of Srinivasa and Spies teaches the acceleration sensor forms an integral part of said analytical unit for said image recording unit (Srinivasa: column 1, lines 24-31, Srinivasa teaches the acceleration sensor can be combined with his system).

n. As per claim 30, the combination of Srinivasa and Spies teaches the acceleration sensor is a sensor sensitive for relatively low accelerations (Spies: column 4, lines 26-27, the acceleration sensor in Spies is sensitive for low accelerations through amplifier 2).

o. As per claim 31, the combination of Srinivasa and Spies teaches wherein said image recording unit has a more restricted sampling range in the second operating mode than a sampling range in the first operating mode (Srinivasa: column 4, lines 52-54, the sampling rate can be adjusted in accordance to particular use, which implies the user can adjust the sampling rate at a faster rate in the second mode than the first mode)

p. As per claim 32, the combination of Srinivasa and Spies teaches wherein said analytical unit has a shorter analysis cycle in the second operating mode than an analysis cycle in the first operating mode (Srinivasa: column 4, lines 52-54, as explained above for a particular use, the user can adjust the processing power in the processing system 108).

q. As per claim 34, Srinivasa at column 4, line 24 implies the camera system may include more one camera to construct a stereoscopic imaging system (also see U.S. Patent No. 5,835,613 to Breed et al, column 5, lines 51-60, for different vehicle interior imaging system substitution).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Breed et al, U.S. Patent No. 5,835,613, see whole document.

b. Mattes et al, U.S. Patent No. 5,118,134, see whole document.

c. Gioutsos et al, U.S. Patent No. 5,446,661, see abstract.

6. **Examiner note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teaching for the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirely as potential teaching all or part of the claimed invention, as well as the context of the a passage as taught by the prior art or disclosed by the examiner.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y. Lu whose telephone number is (571) 272-7393. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571)-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tom Y. Lu/
Art Unit 2624